

NOTES ON MESEMBRYANTHEMUM AND ALLIED GENERA

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Dactyloopsis littlewoodii L. Bol. sp. nov.—A **D. digitata** (Ait.) N. E. Br. habitu multo humiliore, caule tam reducto ut fere invisio esse, ramis primariis omnibus radicibus onustis, folio immo ortus hornotini, ubi viso, bene evoluto nonque ad vaginam tantum reducto, folio secundo vel tertio maximo, ascendente vel patente, compresso, lat. viso oblongo vel oblonge ovato vel ovali, ad 2·8 cm. longo cum vagina 8 mm., ad 1·3 cm. diam., distinguitur.

Plantae 2·5—3 cm. altae; folia lat. visa apice rotundata, 7—28 mm. longa, 3—14 mm. diam.; flores eis **D. digitatae** simillimi; receptaculum conspicue papillatum, 4 mm. longum, ad 5 mm. diam.; calycis tubus 3—4 mm. longus, segmentis 2—5 mm. longis; corolla 1·4 cm. diam. vel demum ad ca. 1·6 cm., tubo ad 3 mm. longo; stamina ad 5-seriata, superiora demum breviter exserta; stigmata 1·5 mm. longa.

Cape Province: Namaqualand, “10 miles N. and 5 miles E. of Bitterfontein”, Oct. 1960, *R. C. Littlewood*, Karoo Garden 308/60. Fl. Nov. 1961.

For three flowering seasons this species has been grown in the Karoo Garden under close observation, side by side with **D. digitata** “on an open scree in full sun. It has come through one of the dampest winters people can remember, the rainfall being over 11 inches with long periods of mist and drizzle”. (*Stayner*). Throughout it has maintained its original dwarf form, as well as the stilt-like roots subtending each primary branch, the almost invisible stem, and the ascending or spreading, differently shaped, and much shorter leaves—distinguishing characteristics which were fully noted by the discoverer and found to be constant in all the considerable number of plants he saw.

The leaves in one flowering growth seen were as many as 5, including the shrinking basal one, which in this case was fleshy with a short blade, and not the bladeless sheath that seems to be usual in **D. digitata**, where “2—3 alternate sheathing leaves” are recorded in the description (*Gard. Chron.* 83:339), no mention being made of the basal sheath. In the more usual 4-leaved growths the largest is the second leaf and in the 5-leaved one the third leaf. In profile these may be oval, oblong, or oblong-ovate, ascending or spreading, “less than 45° from the horizontal or in some cases the *tips* are horizontal”. (*Stayner*).

Cheiridopsis vanbredai L. Bol. sp. nov. (*Bibracteata*).—Planta 1 visa, dense compacta, 6 cm. alta, 11 cm. et 13 cm. diam.; caulis apice 2 cm. diam.; rami floriferi 4-foliati vel rarissime 2-foliati; folia ascendentia, supra visa plana, ovata vel lanceolata, e parum supra basim angustata, acuta, novella conspicue

apiculata, matura superne obtuse carinata, lateribus planis vel cum aetate convexis, lat. visa inferne interdum leviter angustata, apice truncata, breviter 2-lobulata, lobulis conspicue aristatis, cum aetate obscuris, viridia politaque (in siccis minute punctata) vel senecta glauca crassiora (in siccis minute margaritaceo punctata), ad 3 cm. longa cum vagina 9—13 mm., basi ad 1·4 cm. lata, 8—12 mm. diam., superiora ad 3·6 cm. longa cum vagina ad 7 mm.; pedunculi ad 5 cm. longi, cum receptaculo sepalisque tactu velutini; bractee foliis simillimae, 1·5—2 cm. longae cum vagina ad 5 mm.; receptaculum semiglobosum, 5—6 mm. longum, 8—10 mm. diam.; sepalia 5, e prope basim superne angustata, acuta vel acuminata, 8—11 mm. longa, basi 4—8 mm. lata; petala ca. 6-seriata, interiora pauca, inferne leviter angustata, obtusa vel acuta, externe pallide rosea, interne pallidiora vel albidia, 7—35 mm., saepius ad 30 mm., longa, 0·75—1·75 mm. lata; filamenta ca. 6-seriata, conice conferta, mox suberecta, alba, ad 7 mm. longa, antheris griseo purpureis, polline pallidissime griseo; ovarium e disco gradatim ad 0·75 mm. elevatum, lobis inconspicuis; stigmata 10, inferne anguste subulata, e medio superne attenuata, ad 7 mm. longa.

Cape Province: Namaqualand, Richtersveld, "on the farm, Gemsbokvlakte, situated on the road to Stinkfontein—just off the main road from Steinkopf to Port Nolloth", *P. A. B. van Breda* 1768/61. Fl. Veld Reserve, Worcester, Sept. 1962.

Conophytum christiansenianum L. Bol. sp. nov. (*Derenbergia* § *Cordiformia*).—Plantae 2 visae, cultae, 5—7 cm. altae, ad 8 cm. diam.; rami primarii inferne reliquiis sat tenuibus vestiti, internodiis inclusis; corpuscula lat. visa obovata vel oblonge obovata, breviter velutine pubescentia in siccis asperula, subglauce viridia, interdum superne leviter roseo suffusa, 3·5—5 cm. longa, prope apicem 2·2—2·8 cm. diam. cum fissura 7—12 mm., medio vaginae 1·4 cm., vel cum aetate et gemmis axillaribus evolutis ad 1·8 cm., lata, 1·5—1·8 cm. diam., lobis 8—22 mm. longis, basi 5—9 mm. latis, prope apicem 7—13 mm. diam., lat. visa prope apicem rotundatis, apice subtruncatis, integris vel saepissime 2-lobulatis, lobulo anteriore acuto, ad 5 mm. longo, posteriore obtuso breviori cumque aetate obscuro, pustula inconspicua, cum ore breviter pilosa; flores 3 visi, in maximo pedunculus 2 cm. longus, prope basim bracteatus, bracteis membranaceis, 7 mm. longis, vel in fructu immaturo ad 14 mm. accrescentibus; receptaculum 1·5 mm. longum, ad 3 mm. diam.; calyx ad 8 mm. longus, tubo membranaceo, segmentis 5, herbaceis, late marginatis, 2—3 mm. longis; corolla 2·3 cm. longa, tubo superne leviter ampliato, pallido, 1·1 cm. longo, segmentis 2-seriatis, apice rotundatis, luteis, ad 1·5 mm. latis; stamina 7-seriata, lutea, superiora sat breviter exserta; ovarium conice ad 0·75 mm., vel in fructu immaturo ad 2 mm., elevatum; stylus ad 9 mm. longus, stigmatibus 5, ca. 3 mm. longis.

Cape Province: Namaqualand, "22 miles S. of Springbok, growing with *C. hallii*", Nov. 1961, *R. C. Littlewood*. Karoo Garden 965/61. Fl. Feb. 1962.

Mr. Littlewood, describing the habitat of this species as being "one of the typical Namaqualand granite boulders", saw "on this particular one, within a radius of 50 yards, 4 species of *Conophytum*, on the north side *C. pellucidum*, on the south-west *C. hallii*, almost at the summit *C. sp. (Cataphracta)* K.G. 955/61, and on the south *C. christiansenianum*. Of this last there were clumps consisting of up to 35 growths, on the whole making rather dense pads".

This species is named after Dr. Willi Christiansen of Kiel in commemoration of the valuable works he has published in connection with the flora of Germany.

Drosanthemum filiforme L. Bol. sp. nov. (*Hispicaulia*).—Inter gracillima in genere; planta integra non visa; rami primarii (ut videtur) decumbentes subflexuosi, sparse hispidi vel demum glabri, ad 28 cm. longi, 1.5–2 mm. diam., internodiis 2–3 cm. longis, cortice brunneo; ramuli erecti intertexti, cum floribus ad 23 cm. longi, 0.5–1 mm. diam., internodiis ad 3.5 cm. longis; folia fere teretia, obtusa, nitente papillata, papillis rotundis, 1–1.5 cm. longa; pedunculi saepius 4–6 cm. longi; receptaculum obconicum, ad 3 mm. longum diametroque; sepala 5, 3–4 mm. longa, basi 1–1.5 mm. lata; petala 2–3-seriata, e supra medium inferne angustata, obtusa rosea, ad 1.3 cm. longa, ad 2 mm. lata; staminodia nulla; filamenta ca. 4–5-seriata, erecta lutea, ad 5 mm. longa, intima parum supra basim papillata, antheris pollineque albis; glandulae distantes; ovarium e glandulis gradatim ad 0.5 mm. elevatum; stigmata 5, sat gracilia, superne angustata, aurea, ad 4.5 mm. longa.

Cape Province: Namaqualand, Komaggas, Aug. 1961, *H. Herre*, S.U.G. 14779. Fl. Sept. 1962.

Lampranthus gydouwensis L. Bol. sp. nov.—Erectus rigidus glaber, ad 38 cm. altus, caule ad 1 cm. diam.; rami primarii atrati, internodiis 2–4 cm., vel rarius ad 6 cm., longis, 3–6 mm. diam.; ramuli hornotini crebre 4–6-foliati floriferi 6–16 cm. longi, 6–10-foliati, internodiis 1.5–4 cm. longis, ad 1.5 mm. diam.; folia basi leviter patentia, deinde fere erecta, supra plana acuta, lateribus convexis, dorso rotundato, carina ad lineam reducta, lat. visa prope apicem leviter angustata, acuta apiculata, minutissime punctata, punctis non politis, glauce viridia, saepius 2.5–3.5 cm. longa cum vagina tumidula, impressae lineata, 3–5 mm. longa, ad 3 mm. lata, ad 4 mm. diam.; flores meridiani, ad 1.8 cm. diam., 1–2-ternati, quasi corymbosi, cymis 2–3 cm., fructiferis ad 4 cm., longis, 2–3.5 cm. diam.; pedunculi cymarum 1.5–3.5 cm. longi, bracteis 1–1.5 cm. longis cum vagina 6 mm., basi 2–3 mm. diam., ultimi teretes graciles, 1–2.5 cm. longi, omnes paulo infra medium bracteati, bracteis 5–8 mm. longis; receptaculum subglobose obconicum, a pedunculo distinctum, 2–5 mm. longum, 4–6 mm. diam.; sepala 5, e prope medium superne angustata, acuta, omnia $\pm$ marginata, margine latissimo non amplo,

4—5 mm. longa, basi 2—3 mm. lata; petala 1—2-seriata, e medio inferne leviter angustata, saepius obtusa vel apice rotundata, purpureo rosea, 7—9 mm. longa, 1—2 mm. lata; staminodia ad stamina conice conferta valde appressa, paulo infra medium constricta, cum filamentis exterioribus dimidio inferiore dense ciliate papillata albaque, superne rosea, 4 mm. longa; filamenta ad 4·5 mm. longa, intima paulo supra medium papillata, antheris pollineque luteis; discus profunde divisus; ovarium gradatim, deinde prope medium abrupte, ad 1·25 mm. elevatum, lobis dorso complanatis; stigmata 5, gracilia, e basi attenuata, 3 mm. longa; capsula 6—7 mm. longa, infra obconica, supra ad 3 mm. elevata, suturis non, vel superne leviter, compressis, 6—7 mm., expansa 1 cm., diam., valvis late patentibus, demum reflexis, carinis inferne parallelis, superne divergentibus, minutissime lacerulatis, dimidium valvae attingentibus, alis amplis, apicem valvae attingentibus, dimidio superiore libero, alis tegentibus bene evolutis, tuberculo inconspicuissimo in loculis interdum viso; semina late obovata vel fere rotunda, muricata atrobrunnea, 0·75 mm. longa.

Cape Province: in dit. Ceres, Gydouw, Oct. 1939, *C. L. Leipoldt* 4801.

The following collections, in fruit, appear to be this species—*E. Esterhuysen* 12652 (Clanwilliam Div.; east spur Hondverbrand Ridge, South Cederberge, nr. Grootrivier Peak, April 1946); *H. Hall* 2218. (Ceres Div.; Karoopoort, May 1948).

Eberlanzia vanheerdei L. Bol. sp. nov.—Planta 1 visa, fera erecta compacta glabra, 14 cm. alta, 9 cm. et 14 cm. diam.; caulis apice 1 cm. diam.; rami primarii ad 7 mm., secundarii 3—4 mm., diam., internodiis albidis, inclusis vel 2—6 mm. longis; partes herbaceae tactu subvelutinae, pallide glaucae virides; folia matura ascendentia, interdum subfalcata, supra visa plana vel prope apicem convexula, acuta vel obtusa, lateraliter compressa, carina subobtusa, lateribus planis vel altero leviter convexo, lat. visa inferne leviter angustata, obtusa vel oblique rotundata vel subtruncata, 2·5—3 cm. longa cum vagina 1·5 mm., medio 4—5 mm. lata, 8—10 mm. diam.; cymae ad 2·2 cm. longae, 2·5—3·5 cm. diam., 1—3-ternatae, 3—7-fl., pedunculis lateralibus in ramulis ultimis spinescentibus, vel cyma unica 1-fl., spinis lateralibus supra medium bracteolatis, axillis spinam gerentibus, spinis primariis ad 2 cm. longis, basi ad 0·75 mm. diam.; flos unicus tantum visus, submarcescens, ceteribus omnibus in fructum transeuntibus; pedunculi 1—2 mm. longi; receptaculum globose obconicum, 4 mm. longum, 6 mm. diam.; sepala 5, 4—5 mm. longa; petala obtusa rosea, ad 1 cm. longa, ad 1 mm. lata; staminodia nulla; stamina ca. 4-seriata, conferta, inferne incumbentia, deinde erecta, omnino alba, ad 5 mm. longa; ovarii lobi inconspicui, sat distantes, leviter compressi, vix ad 0·5 mm. elevati; stigmata 6 (7—8 in fructibus immaturis persistentia), gracilia viridia, 7 mm. longa; capsula anni prioris infra globose obconica, 4 mm. longa, supra late conica, ad 2·5 mm. elevata, suturis leviter compressis, 7 mm., expansa

12 mm., diam., valvis valde reflexis, anguste alatis, alis ultra medium attingentibus, carinis crassis, inferne contiguis, superne divergentibus, dimidium valvae vix attingentibus, tuberculo subreniformi albo, circa dimidium oris complente, processibus 2 in alis tegentibus prope os loculi conspicuis, tuberculum fere attingentibus; semina piriformia brunnea, 0.75 mm. longa.

Cape Province: Namaqualand; Richtersveld, "on road N. of road between Anisfontein and Sendlingsdrift", Oct. 1962, *P. van Heerde*. Bolus Herb. 27275.

Ruschia vanheerdei L. Bol. sp. nov.—Planta culta, decumbens, laxissime subintricateque ramosa—"plant rather flat on the ground, at present covering about a square yard in my garden" (*van Heerde*), glabra; rami plures visi, in genere graciles sed tamen lignosi rigidique, albidii, ad 30 cm. longi, ad 3 mm. diam., internodiis 3—5 cm. longis; ramuli ultimi floriferi erecti, cum floribus 11—14 cm. longi, prope basim 2-foliata, internodio inter folia et bracteas primarias cymae 3—6 cm. longo; folia matura ascendentia, supra superne convexula, prope apicem non, vel leviter, angustata, obtusa vel subacuta, dorso rotundata, lat. visa apice rotundata, levia, diu persistentia brunneaque, demum rubescentia, 3—4 cm. longa cum vagina vera 3.5 mm., medio 6—8 mm. lata diametroque; cyma rite 3-flora vel abortione 1—2-fl., bracteis primariis foliis simillimis, ad 3 cm. longis; pedunculi omnes prope medium bracteati, intermedii 4—8 cm. longi, laterales breviores; bracteae 1—1.8 cm. longae cum vagina ventricosa ad 1 cm., vel rarius foliiformes, ad 2.5 cm. longae cum vagina ad 7 mm.; receptaculum obconicum vel subclavatum, 6—8 mm. longum, 8—9 mm. diam.; sepala 5, exteriora ad 1.5 cm., accrescentia in fructu immaturo ad 2.2 cm., basi 5—6 mm. lata, ad 5 mm. diam., interiora superne $\pm$ subulata, late marginata, 9—10 mm. longa, basi ad 4 mm. lata; petala 3—4-seriata, exteriora parum inaequilonga, interiora pauca, e prope medium inferne leviter angustata, obtusa nivea, 9—20 mm. longa, 0.5—2 mm. lata; staminodia nulla; filamente ca. 4-seriata, conice conferta, alba, ad 6 mm. longa, intima prope medium dense papillata, antheris pollineque interdum griseo roseis vel rubre aurantiacis, demum pallidis; discus inconspicuus pentagonus, angulis rotundatis; ovarii lobi inconspicui, dorso subcomplanati, e disco gradatim ad 2 mm. elevati; stigmata 5, anguste subulata, ad 6 mm. longa cum cauda ad 1.5 mm. longa; capsulae senectae ferae, ut videtur, infra obconicae vel subclavatae, 10-costatae, 7—9 mm. longae, supra ad 4 mm. elevatae, suturis valde compressis, ad 1.3 cm., apertae 1.4 cm., diam., valvis erectis, in nullo modo expansis, carinis inferne parallelis subdistantibus, superne divergentibus, tertiam partem valvae attingentibus, tuberculo ovali, ca. 1 mm. longo, alis tegentibus sat brevibus, pagina inferiore prope marginem 2 alas ferente.

Cape Province: Namaqualand, "near the road to Port Nolloth, about 20 miles from Port Nolloth, collected about 2 years ago", *P. van Heerde*. Bolus Herb. 27273. Fl. Sept. 1962.

The presence of wing-like appendages near the margin on the lower surface of the covering wings of the loculi has not been recorded in any other species described in these "Notes".

Ruschia persistens L. Bol. sp. nov. (*Microphylla*).—Planta 1 visa, fera viva erecta, dense compacta, glabra, 7 cm. alta, 15 cm. et 16 cm. diam.; caulis apice 9 mm. diam., ibique ramos plures crebros, copiose ramulosos, 4—7 mm. diam., emittens; ramuli inferne saepissime foliis diu persistentibus (itaque nomen), formam sustentibusque vestiti, ad 10 paria infra par hornotinum visa; folia in ramulis floriferis 2, in sterilibus 4, inferiora supra visa plana, prope apicem leviter angustata, acuta, lat. visa saepe subfalcata, superne leviter ampliata, apice oblique rotundata, viridia, primum translucente punctata, cum aetate punctis minute margaritaceis, 5—6 mm. longa cum vagina 0·5 mm., ad 2 mm. lata, ad 2·5 mm. diam., superiora ad 5 mm. longa cum vagina ad 2 mm., ad 1·25 mm. diam.; pedunculi 2—4 mm., fructiferi ad 7 mm., longi, bracteis persistentibus, ad 4 mm. longis cum vagina 2 mm.; receptaculum semiglobosum, 2 mm. longum, ad 2·5 mm. diam.; sepala 5, e prope medium superne angustata, subacuta, 3—3·5 mm. longa, basi 1·5—2 mm. lata, interiora marginata; petala 2-seriata, e prope basim inferne leviter angustata, saepius obtusa, externe pallidissime, interne laete, rosea, inconspicue vittata, 5—6 mm. longa, saepius 1 mm. lata; staminodia pauca, mox recurva, staminibus aequilonga; filamenta ca. 4-seriata, conferta, inferne incurva, mox erecta, inferne pallida, superne purpureo rosea, ad 3 mm. longa, interiora parum supra basim papillata, antheris pollineque stramineis; ovarii lobi e disco erecti, approximati, obtuse compressi, ad 0·5 mm. elevati; stigmata 5, subulata, pallide viridia, demum 1·5 mm. longa, cauda subnulla; capsula 1 visa, senecta, infra obconica, 2 mm. longa, 4 mm., expansa 8 mm., diam., carinis inferne parallelis, superne divergentibus, ultra medium valvae attingentibus, breviter aristatis, tuberculo subreniformi.

Cape Province: in dit. Montagu, "on the farm Jakkalsfontein", Aug. 1962, *P. A. B. van Breda* 1750/62.

The following collections appear to be this species—*E. Esterhuysen* 3125 (Montagu Div.; Dobbelaars Kloof, May 1940, in fruit) and *E. Esterhuysen* 25880 (Ladismith Div.; Touwsberg, 3000 ft.), not in flower.

Ruschia mallesoniae (L. Bol.) L. Bol. comb. nov. *Mesembryanthemum mallesoniae* L. Bol., Ann. Bol. Herb. III:129 (1922).—The placental tubercle is among the smallest in the genus, the valves are wingless, the keels have a short aristate wing reaching the apex of the valve, the covering wings of the loculi are very short, extending about half-way to the tubercle. This species is frequent on the mountains of the Western Province where it has often been collected by Miss Esterhuysen.

Rhinephyllum vanheerdei L. Bol. sp. nov.—Planta 1 visa, fera compacta, 7 cm. alta, 12 cm. diam.; caulis apice 1·1 cm., rami primarii ad 8 mm., diam.;

ramuli ultimi 4—6-foliati, internodiis inclusis; folia fere erecta, supra visa plana, prope apicem leviter angustata, obtusa vel subacuta, matura dorso rotundata vel in novellis carina ad lineam asperam reducta, lat. visa prope apicem leviter angustata, apice rotundata, pallide glauce viridia, cum aetate subroseo tincta, tuberculis minutis, in foliis immaturis conspicuissimis, 3—6·2 cm. longa, medio 6—9 mm. lata diametroque; flores plures visi; pedunculus subcompressus 2-angulatusque, 2—2·6 cm. longus; receptaculum obconicum, 6 mm. longum, 7—8 mm. diam.; sepala 5, e parum supra basim superne angustata, acuta, 8—9 mm. longa, basi ad 4—6 mm. lata, exteriora carinata, interiora anguste rubre marginata; petala 2—3-seriata, inferne saepe vix angustata, obtusa lutea, 9—10 mm. longa, 1—1·25 mm. lata; filamenta ca. 4-seriata, alba vel pallida, ad 9 mm. longa, interiora parum supra basim papillata, antheris pol-lineque luteis; glandulae nectarii approximatae vel contiguae, apice rotundatae, obscure crenulatae, fere ad 2 mm. altae; ovarium concavum, medio tantum leviter elevatum, lobis inconspicuis; stigmata 5, gracilia, ad apicem papillata, viridia, 6—7 mm. longa; capsula 1 visa senecta, supra plana, suturis vix compressis.

Cape Province: Namaqualand; "E. of Stofvlei—Stofvlei of the 'Rand-se-Pad', Boesmanland", Oct. 1962, *P. van Heerde*. Bolus Herb. 27272.

The genus *Trichodiadema* may be divided roughly into 4 main groups (one of which may be subdivided), based upon vegetative characters chiefly connected with the set of the hair or bristle terminating the papillae, either on the whole surface of the leaves or concentrated at their apex.

KEY TO THE GROUPS.

1. Papillae tipped with a soft hair—e.g. *T. strumosum*, *T. fergusoniae* . . . STRUMOSA
1. Papillae not as above.
 2. Leaves $\pm$ conspicuously tipped with bristles.
 3. Bristles radiating to form a diadem RADIANTIA
 - 3a. Plants low-growing, densely compact or loosely branched, erect or decumbent—e.g. *T. densum*, *T. barbatum* BARBATA
 - 3a. Plants with elongated virgate branches, sometimes scrambling—e.g. *T. setuliferum*, *T. pomeridianum* VIRGATA
 3. Bristles erect, forming a tuft—e.g. *T. mirabile*, *T. intonsum* . . . STRICTA
 2. Leaves not, or very obscurely, tipped with bristles—e.g. *T. attonsum*, *T. calvatum* ATTONSA

Trichodiadema burgeri L. Bol. sp. nov. (*Radiantia* § *Barbata*).—Plantae plures visae, ferae vivae, juveniles caespitosae, senectae laxe crasseque ramosae, 8—12 cm. altae vel ultra, ad 12 cm. diam.; radix tuberosa, demum crassa, ad 3·3 cm. diam.; rami primarii senecti ad 1·5 cm., juveniles 2—4 mm., diam.; ramuli ultimi 1—2 cm. longi, saepe 2 mm. diam., inferne reliquiis vaginantibus foliorum delapsorum vestiti, internodiis inclusis; folia dense imbricata, supra

visa plana, e basi angustata, acuta, dorso rotundata, lat. visa superne angustata, 5—12 mm. longa cum vagina submembranacea 4 mm. longa, papillis anguste ovalibus, apice tantum setiferis, setis papillis fere aequilongis, setis apicalibus radiantibus ad 14, albis, ad 3 mm. longis; pedunculi 3—4 mm., fructiferi ad 11 mm., longi, cum receptaculo et sepalis inferne dense capillaceo setiferi, setis erectis, ad 3 mm. longis; receptaculum obconicum, ad 3 mm. longum, ad 5 mm. diam.; sepala 5, superne angustata, subacuta, 4—5 mm., vel 5—6 mm., longa, basi 1·5—2 mm. lata, interiora marginata; petala 2-seriata, e supra medium inferne angustata, obtusa subrubida, ad 1·2 cm. longa, ad 1·5 mm. lata; staminodia sat pauca, stamina aequantia vel excedentia; filamenta ca. 5-seriata, conferta, mox fere erecta, prope basim leviter constricta, nivea, vix ad 5 mm. longa, exteriora inferne obscure ciliate papillata, intima parum supra basim papillata, antheris pollineque albidis; glandulae approximatae; ovarii lobi e glandulis fere erecti, obtuse compressi, apice rotundati, ad 0·5 mm. elevati; stigmata 5, subulata, ad 2 mm. longa cum cauda 0·75 mm.; capsula pallida, infra globose obconica, 4 mm. longa, supra per 2 mm. elevata, suturis acute compressis, ad 7 mm., expansa 1·2 cm., diam., tuberculo parvo bifido.

Cape Province: in dit. Oudtshoorn; "De Rust", prope Oudtshoorn, Sept. 1962, *S. Burger*. Bolus Herb. 27274.

Sphalmanthus crassus L. Bol. sp. nov.—Planta 1 visa, fera erecta glabra; radix crassa tuberosa, parte superiore tantum visa, 8 cm. longa, ad 7 cm. diam.; partes herbaceae virides, papillis orbicularibus, in vivis inconspicuis; rami hornotini herbacei, primarii ad 1 cm. diam., internodiis 2—2·5 cm. longis; folia ascendentia vel patentia, opposita vel in ramulis floriferis alterna, supra visa linearia, e supra medium leviter angustata, obtusa, leviter concava, dorso rotundata, 3·5—5·5 cm. longa; pedunculi ad 1·4 cm. longi, apice 3—4 mm. diam.; receptaculum subglobosum vel globose obconicum, 7—8 mm. longum, 8—9 mm. diam.; calycis tubus ca. 1·5 mm. longus, segmentis 5, basi 4—6 mm. latis, exteriora obtusa, 1·6—2 cm. longa, interiora in dimidio superiore acutissime subulata, ample marginata, 1—1·5 cm. longa; petala per 1 mm. coalita, in alabastris viridia, matura pallidissime citrina, marcescentia pallide rosea exteriora ca. 3-seriata, e supra medium inferne levissime angustata, obtusa, ad 1·7 cm. longa, ad 1·5 mm. lata; staminodia pluriseriata, 7—12 mm. longa, exteriora in petala gradatim transeuntia, interiora a petalis bene distincta; filamenta 6—7-seriata, pallide viridia, demum albidia, ad 6 mm. longa, antheris pollineque stramineis; nectaria tubiformia, basim loculi attingentia; ovarium e nectariis gradatim ad 1·5 mm. elevatum, lobis acute compressis, dorso subconcavis; stigmata 5, viridia, obtusa, 2 mm. longa, vel in flore altero superne attenuata, ad 3 mm. longa.

Cape Province: Namaqualand; Richtersveld, "top of Kliphoogte, growing with *Conophyllum*", Sept. 1962, *P. van Heerde*. Bolus Herb. 27271.

ADDITIONAL NOTES

Lampranthus subrotundus L. Bol. (*L. subglobosus* L. Bol. non Haw.) was described (Mesemb. III:56) in 1937. It flowered in Nov. 1936 in the Stellenbosch University Garden, the locality and collector being unknown. Miss Esterhuysen's Collection (29791) from the "Ceres Div., Baviaansberg (north of Theron's Pass) slopes, eastern aspect, 4000 ft., Nov. 4, 1962", has been identified with this species. It represents two forms—older plants with petals up to 1.5 cm. long and plants flowering in their first year ("in a burnt area") with petals up to 1 cm. long, as in the type.

Drosanthemum worcesterense L. Bol. was known only from the type collection (Worcester Veld Reserve, Nov. 1934, *N. G. van Breda* 163) until it was found in Nov. 1961 "at the edge of a dry river bed at Karoopoort" by *H. Hall* (2291).

The range of distribution of **Delosperma ausense** L. Bol. was extended by the collection of *H. Hall* (1912) made at Lorelei in March 1960. It flowered freely at Kirstenbosch (N.B.G. 218/60) during October and November 1962.

In August 1961, Mr. Herre (S.U.G. 14646) collected a **Cheiridopsis** between Steinkopf and Eenriet which flowered in September 1962. It is undoubtedly the same as the one (Karoo Garden 192/59) noted in this Journal (27:264) as being **C. aspera** L. Bol. with larger leaves and flowers than those of the type. The collector and locality were not known.

NOTE.—The type specimens of all new species described in this paper are in the Bolus Herbarium, University of Cape Town, Rondebosch.

(To be continued.)